

CLAIMS

What is claimed is:

1. A detection method commonly used for a video interface outlet and earphone line outlet, comprising the following steps:
 - (1) allowing a detection device to detect whether a plug is inserted in a four-terminals outlet, if no, continuing detecting; otherwise, entering a next step;
 - (2) allowing said detection device to detect whether an impedance value of a video output terminal of said four-terminals outlet is larger than a preset value, if yes, causing said detection device to control said video output terminal to output a video signal; if no, causing said detection device to control said video signal output terminal not to output a video signal.
2. The method according to claim 1, wherein said detection device is connected to a plug detection terminal and video output terminal of said four-terminals outlet; said detection device emits a control signal to cause said video signal output terminal to output a video signal or not to output a video signal according to an output impedance value of said video output terminal when said detection device detects a message that a plug is inserted in said plug detection terminal.
3. The method according to claim 2, wherein said detection device comprises a microprocessor connected respectively to said plug detection terminal of said four-terminals outlet, control signal input terminals of first, second and third switch chips and a signal output terminal of a transistor; said first and second switch chips are further connected

respectively to said transistor through corresponding resistors; a detection-use power supply input terminal is connected to said first switch chip; said power supply input terminal communicates said transistor and said second switch chip respectively through said corresponding resistors when said first switch chip is opened; said second switch chip is further connected to a video output terminal of said outlet; said microprocessor emits a signal to open respectively said first switch chip and said second chip respectively through said control signal input terminals when said microprocessor detects a message the a plug is inserted in said plug detection terminal; said detection-use power is caused to transmit to said transistor and said second switch chip, and said second switch chip is caused to rely on an output impedance value of said video output terminal to cause a signal output terminal of said transistor to feedback a level state of said output impedance to said microprocessor; said microprocessor then emits a control signal to said third switch chip to cause said third switch chip to control an amplifier to output a video signal or not to output a video signal to said video signal output terminal.

4. The method according to claim 3, wherein said microprocessor then emits a control signal to said third switch, and in the meantime, emits a control signal to close said first and second switch chips.

5. A detection device commonly used for a video interface outlet and earphone line outlet, comprising a detection device connected respectively to a plug detection terminal and video output terminal of a four-terminals outlet; thereby, said detection device can discern the type of an inserted

plug according to an output impedance value of said video output terminal when said detection device detects a message that said plug is inserted in said plug detection terminal.

6. The device according to claim 5, wherein said detection
5 device comprises a microprocessor connected respectively
to said plug detection terminal of said four-terminals outlet,
control signal input terminals of first and second switch
chips and a signal output terminal of a transistor; said
first and second switch chips are further connected
10 respectively to said transistor through corresponding
resistors; a detection-use power supply input terminal is
connected to said first switch chip; said second switch chip
is further connected to a video output terminal of said
outlet; whereby said microprocessor emits a signal to open
15 respectively said first switch chip and said second chip
respectively through said control signal input terminals
when said microprocessor detects a message that a plug is
inserted in said plug detection terminal; said detection-use
power is caused to transmit to said transistor and said second
20 switch chip, and said second switch chip is caused to rely
on an output impedance value of said video output terminal
to cause a signal output terminal of said transistor to
feedback a level state of said output impedance to said
microprocessor so as to know the type of said inserted plug.
- 25 7. The device according to claim 6, wherein said
microprocessor is further connected to a control signal input
terminal of a third switch chip, said third switch chip is
further connected to a power supply of a video signal
amplifier so that said microprocessor emits a control signal
30 to said third switch chip to cause said third switch chip

to control said amplifier to output a video signal or not
to output a video signal when said microprocessor detects
a signal output terminal of said transistor is at a high
voltage level or at a low voltage level.

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